HOEFER WYSOCKI
Architecture

Memorandum

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Project: Council Bluffs Police Headquarters - #158131

Date: April 29, 2016

Purpose: Site Area Requirement

When calculating the required area for a project site, Hoefer Wysocki recommends a long-term approach. A public building, like a police station, is an investment that communities expect to last at least 50 years. However, with the proper planning and a reasonable maintenance program, there is no reason that expectation shouldn't be in the excess of 100 years. Site capacity plays a huge role in this determination.

Council Bluffs is in a situation where they have outgrown their current facility and the site is too small to handle expansion. Although we have seen this happen in a number of communities, it is generally due to an under-estimation of site requirements when their original buildings were conceived.

In order to determine the site capacity recommendation for the new Council Bluffs Police Headquarters, we follow the following calculation:

First, we need to understand the building area requirements. As public safety experts, Hoefer Wysocki has help the City assess their space needs for the next 20 years. We have taken into account population projections, community outreach programs, process efficiency, space requirements, etc. in order to develop an understanding of the types and size of spaces required for the station to function properly and efficiently. In the case of Council Bluffs, this area total is approximately 64,000 square feet.

Next, we layer in parking requirements. This is done by analyzing staff counts, specialty/police vehicle requirements and public parking needs. We have made a recommendation that the City provide 50 public parking stalls and 120 staff parking stalls for a total of 170 stalls.

Finally, we determine the site area requirements. For the parking, we use the factor of 400 square feet per stall. In addition to the parking stalls themselves, this factor allows for all site circulation, sidewalks, landscaping and loading/trash areas.

170 stalls x 400 sq. ft./stall = 68,000 sq. ft.

For the building, our experiences have shown that a two-story facility creates the most efficient layout for a police station in this size community. Evaluation of the space needs program shows that approximately 2/3 of the total area (for things like vehicle bays, physical training rooms, patrol support spaces, lockers, etc.) would ideally be located on the ground floor. This leads to the following site area requirement:

64,000 sq. ft. x 2/3 = 42,600 sq. ft. (area on ground floor)

The total area would then be:

68,000 + 42,600 = 110,600 sq. ft.

For long-term planning, our experiences have led us to recommend a 50% increase in these areas to insure that the police won't outgrow their new facility and have to move again in the mid to distant future.

110,600 sq. ft x 1.5 growth factor = 165,900 sq. ft.

For this area, a reasonably proportioned site would be about 300 x 550. Due to set-back requirements on sites that are imposed by zoning, utility easements, security requirements, etc. we would generally recommend at least a 30 foot buffer around the perimeter of the site (see sketch below). Therefore, the recommended site would be about 360 x 610, or 219,600 sq. ft.

At the rate of 43,560 sq. ft. per acre, this leads to the following minimum requirement:

219,600 sq. ft. / 43,560 sq. ft. per acre = 5.04 acres